



# UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,430	02/22/2002	Mineo Nomoto	16869P-041700US	6313
20350	7590	12/27/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			LYONS, MICHAEL A	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/082,430

Applicant(s)

NOMOTO ET AL.

Examiner

Michael A. Lyons

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 092605.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on July 27, 2001. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

***Specification***

The abstract of the disclosure is objected to because the abstract is longer than the 15 line/150 word requirement. Correction is required. See MPEP § 608.01(b).

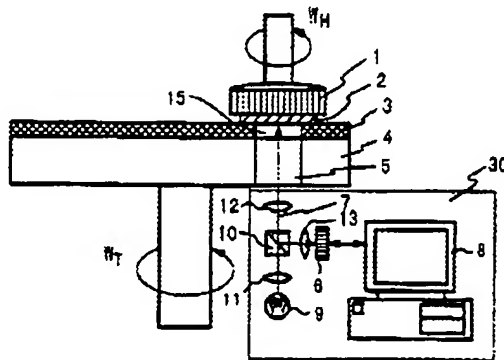
***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Abe et al (6,963,407).**



Regarding claim 1, Abe (Fig. 1) discloses a method for manufacturing thin film devices comprising a white light source 9 for irradiating white light onto an area of a thin film device 2 having an optically transparent film thereon during polishing, a detector 6 for detecting reflected light from the area of the thin film device due to the irradiation of the white light, correcting the spectral waveform of the reflected light which is distorted by slurry used in polishing (Col. 8, lines 14-25, for example), and determining the thickness of the optically transparent film by using the information of the detected spectral waveform, as thickness measurement is inherent to detecting the process end point of polishing.

As for claim 2, Abe's method allows for end point detection. Without a preset reference thickness, the end point can never be detected, as the currently measured value of the object being measured will have nothing to be compared to in order to tell if the thickness has reached the desired level in order to signal the end point of the process.

Regarding claim 3, Abe (Fig. 1) discloses a method for manufacturing thin film devices comprising a white light source 9 for irradiating white light onto an area of a thin film device 2 having an optically transparent film thereon during polishing, a detector 6 for detecting reflected light from the area of the thin film device due to the irradiation of the white light, correcting the spectral waveform of the reflected light which is distorted by slurry used in polishing (Col. 8, lines 14-25, for example), and determining the thickness of the optically transparent film by using the information of the detected spectral waveform, as thickness measurement is inherent to detecting the process end point of polishing. As to the setting of regions, Abe's method allows for end point detection. Without a preset reference thickness, the end point can never be detected, as the currently measured value of the object being measured will have nothing to be

Art Unit: 2877

compared to in order to tell if the thickness has reached the desired level in order to signal the end point of the process.

As for claim 4, see Column 8, lines 1-44.

Regarding claim 5, Abe (Fig. 1) discloses a method for manufacturing thin film devices comprising a white light source 9 for irradiating white light onto an area of a thin film device 2 having an optically transparent film thereon during polishing, a detector 6 for detecting reflected light from the area of the thin film device due to the irradiation of the white light, correcting the spectral waveform of the reflected light which is distorted by slurry used in polishing (Col. 8, lines 14-25, for example), and determining the thickness of the optically transparent film by using the information of the detected spectral waveform, as thickness measurement is inherent to detecting the process end point of polishing. As to the setting of regions, Abe's method allows for end point detection. Without a preset reference thickness, the end point can never be detected, as the currently measured value of the object being measured will have nothing to be compared to in order to tell if the thickness has reached the desired level in order to signal the end point of the process.

As for claim 6, see Column 8, lines 1-44.

Regarding claim 7, Abe (Fig. 1) discloses a method for manufacturing thin film devices comprising a white light source 9 for irradiating white light onto an area of a thin film device 2 having an optically transparent film thereon during polishing, a detector 6 for detecting reflected light from the area of the thin film device due to the irradiation of the white light, correcting the spectral waveform of the reflected light which is distorted by slurry used in polishing (Col. 8, lines 14-25, for example), and determining the thickness of the optically transparent film by

using the information of the detected spectral waveform, as thickness measurement is inherent to detecting the process end point of polishing.

As for claims 8-11, see Figs. 2-4 and the corresponding discussion within the specification. On the graphs, the reflectance value is the amount of light reflected back from the thin film; the higher the reflectance, the more light being detected by the detector, therefore leading to intensity information being measured and presented. Also, while the graphs indicate wavelength, the wavelength spectrum and the frequency spectrum are one in the same (claims 9 and 11, specifically).

#### *Response to Arguments*

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

#### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2877

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420.

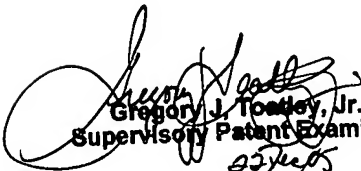
The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAL

December 21, 2005

  
Gregory J. Toatley, Jr.  
Supervisory Patent Examiner  
12/21/05